

APPENDIX A**List of Commenters**

American Cable Association
ATI Technologies, Dell, Intel, HP, Microsoft & NEC
Comcast Corporation
Consumer Electronics Assoc./Consumer Electronics Retailers Coalition
DirecTV, Inc.
Electronic Frontier Foundation
Home Recording Rights Coalition
Intel Corporation
Motion Picture Association of America
National Assoc. of Broadcasters/Assoc. for Maximum Service Television
National Cable & Telecommunications Assoc.
National Music Publishers' Association, *et al*
Public Knowledge and Consumers Union
Satellite Broadcasting & Communications Assoc
Sinclair Broadcast Group Inc.
Starz Encore Group LLC
Telecommunications for the Deaf, Inc
TiVo Inc.
Zenith Electronics Corporation

List of Reply Commenters

APTS/PBS/CPB
Comcast Corporation
Consumer Electronics Assoc./Consumer Electronics Retailers Coalition
Consumer Federation of America
EchoStar Satellite Corporation
Electronic Frontier Foundation
Genesis Microchip, Inc.
Gist Communications
Home Box Office, Inc.
Home Recording Rights Coalition
Motion Picture Association of America
National Assoc. of Broadcasters/Assoc. for Maximum Service Television
National Cable & Telecommunications Assoc
National Music Publishers' Association, *et al*.
Paxson Communications Corporation
Philips Electronics North America Corporation
Public Knowledge and Consumers Union
Starz Encore Group LLC
Veridian Corporation

APPENDIX B

Part 15 of the Code of Federal Regulations is amended as follows:

PART 15 – RADIO FREQUENCY DEVICES

1. The authority for Part 15 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302, 303, 304, 307, 336, and 544a.

2. Add §15.38 to subpart A to read as follows:

§15.38 Incorporations by Reference.

(a) The materials listed in this section are incorporated by reference in this part. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC, at the Reference Information Center, Federal Communications Commission, 445 12th. St., SW, Room CY- A257, Washington, DC 20554.

(b) The following materials are available for purchase from at least one of the following addresses: Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112 or at <http://global.ihs.com>; or American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY 10036 or at <http://webstore.ansi.org/ansidocstore/default.asp>; or Society of Cable Telecommunications Engineers at <http://www.scte.org/standards/index.cfm>.

(1) SCTE 28 2003 (formerly DVS 295): “Host-POD Interface Standard,” 2003, IBR approved for § 15.123.

(2) SCTE 41 2003 (formerly DVS 301): “POD Copy Protection System,” 2003, IBR approved for §15.123.

(3) ANSI/SCTE 54 2003 (formerly DVS 241): “Digital Video Service Multiplex and Transport System Standard for Cable Television,” 2003, IBR approved for §15.123

(4) ANSI/SCTE 65 2002 (formerly DVS 234): “Service Information Delivered Out-of-Band for Digital Cable Television,” 2002, IBR approved for §15.123.

(5) SCTE 40 2003 (formerly DVS 313): "Digital Cable Network Interface Standard," 2003, IBR approved for §15.123.

(6) ANSI C63.4-1992: "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz," 1992, IBR approved for §15.31, except for sections 5.7, 9 and 14.

(7) EIA IS-132: "Cable Television Channel Identification Plan," 1994, IBR approved for §15.118.

(8) EIA-608: "Recommended Practice for Line 21 Data Service," 1994, IBR approved for §15.120.

(9) EIA-744: "Transport of Content Advisory Information Using Extended Data Service (XDS)," 1997, IBR approved for §15.120.

(10) EIA-708-B: "Digital Television (DTV) Closed Captioning," 1999, IBR approved for §15.122

(11) Third Edition of the International Special Committee on Radio Interference (CISPR), Pub. 22, "Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement," 1997, IBR approved for §15.109.

(c) The following materials are freely available from at least one of the following addresses. Consumer Electronics Association, 2500 Wilson Blvd., Arlington, VA 22201 or at <http://www.ce.org/public> policy.

(1) Uni-Dir-PICS-I01-030903. "Uni-Directional Receiving Device: Conformance Checklist. PICS Proforma," 2003, IBR approved for §15.123

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3. Add §15.123 to subpart B to read as follows

§15.123 Labeling of Digital Cable Ready Products.

(a) The requirements of this section shall apply to unidirectional digital cable products. Unidirectional digital cable products are one-way devices that accept a Point of Deployment module (POD) and which include, but are not limited to televisions, set-top-boxes and recording devices connected to digital cable systems. Unidirectional digital cable products do not include interactive two-way digital television products.

(b) A unidirectional digital cable product may not be labeled with or marketed using the term "digital cable ready," or other

terminology that describes the device as “cable ready” or “cable compatible,” or otherwise indicates that the device accepts a POD or conveys the impression that the device is compatible with digital cable service unless it implements at a minimum the following features

(1) Tunes NTSC analog channels transmitted in-the-clear.

(2) Tunes digital channels that are transmitted in compliance with SCTE 40 2003 (formerly DVS 313): “Digital Cable Network Interface Standard” (incorporated by reference, see § 15.38), provided, however, that with respect to Table B.11 of that standard, the phase noise requirement shall be -86 dB/Hz including both in-the-clear channels and channels that are subject to conditional access.

(3) Allows navigation of channels based on channel information (virtual channel map and source names) provided through the cable system in compliance with ANSI/SCTE 65 2002 (formerly DVS 234): “Service Information Delivered Out-of-Band for Digital Cable Television” (incorporated by reference, see § 15.38), and/or PSIP-enabled navigation (ANSI/SCTE 54 2003 (formerly DVS 241): “Digital Video Service Multiplex and Transport System Standard for Cable Television” (incorporated by reference, see § 15.38)).

(4) Includes the POD-Host Interface specified in SCTE 28 2003 (formerly DVS 295): “Host-POD Interface Standard” (incorporated by reference, see § 15.38), and SCTE 41 2003 (formerly DVS 301): “POD Copy Protection System” (incorporated by reference, see § 15.38), or implementation of a more advanced POD-Host Interface based on successor standards. Support for Internet protocol flows is not required.

(5) Responds to emergency alerts that are transmitted in compliance with ANSI/SCTE 54 2003 (formerly DVS 241): “Digital Video Service Multiplex and Transport System Standard for Cable Television” (incorporated by reference, see § 15.38)

(6) In addition to the above requirements, a unidirectional digital cable television may not be labeled or marketed as digital cable ready or with other terminology as described in paragraph (b) of this section, unless it includes a DTV broadcast tuner as set forth in §15.117(i) and employs at least one specified interface in accordance with the following schedule:

(i) For 480p grade unidirectional digital cable televisions, either a DVI/HDCP, HDMI/HDCP, or 480p Y,Pb,Pr interface:

(A) Models with screen sizes 36 inches and above: 50% of a manufacturer's or importer's models manufactured or imported after July 1, 2004; 100% of such models manufactured or imported after July 1, 2005.

(B) Models with screen sizes 32 to 35 inches: 50% of a manufacturer's or importer's models manufactured or imported after July 1, 2005; 100% of such models manufactured or imported after July 1, 2006.

(ii) For 720p/1080i grade unidirectional digital cable televisions, either a DVI/HDCP or HDMI/HDCP interface:

(A) Models with screen sizes 36 inches and above: 50% of a manufacturer's or importer's models manufactured or imported after July 1, 2004; 100% of such models manufactured or imported after July 1, 2005.

(B) Models with screen sizes 25 to 35 inches: 50% of a manufacturer's or importer's models manufactured or imported after July 1, 2005; 100% of such models manufactured or imported after July 1, 2006.

(C) Models with screen sizes 13 to 24 inches: 100% of a manufacturer's or importer's models manufactured or imported after July 1, 2007.

(c) Before a manufacturer's or importer's first unidirectional digital cable product may be labeled or marketed as digital cable ready or with other terminology as described in paragraph (b) of this section, the manufacturer or importer shall verify the device as follows:

(1) The manufacturer or importer shall have a sample of its first model of a unidirectional digital cable product tested to show compliance with the procedures set forth in Uni-Dir-PICS-I01-030903: "Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma" (incorporated by reference, see § 15.38) at a qualified test facility. The manufacturer or importer shall have any modifications to the product to correct failures of the procedures in Uni-Dir-PICS-I01-030903: "Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma" (incorporated by reference, see § 15.38) retested at a qualified test facility

(2) A qualified test facility is a facility representing cable television system operators serving a majority of the cable television subscribers in the United States or an independent laboratory with personnel knowledgeable with respect to the standards referenced in paragraph (b) of this section concerning the procedures set forth in Uni-Dir-PICS-I01-030903: "Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma" (incorporated by reference, see § 15.38).

(3) Subsequent to the testing of its initial unidirectional digital cable product model, a manufacturer or importer is not required to have other models of unidirectional digital cable products tested at a qualified

test facility for compliance with the procedures of Uni-Dir-PICS-I01-030903: "Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma" (incorporated by reference, see § 15.38). However, the manufacturer or importer shall ensure that all subsequent models of unidirectional digital cable products comply with the procedures in the Uni-Dir-PICS-I01-030903: "Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma" (incorporated by reference, see § 15.38) and all other applicable rules and standards. The manufacturer or importer shall maintain records indicating such compliance in accordance with the verification procedure requirements in part 2, subpart J of this chapter. The manufacturer or importer shall further submit documentation verifying compliance with the procedures in the Uni-Dir-PICS-I01-030903: "Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma" (incorporated by reference, see § 15.38) to a facility representing cable television system operators serving a majority of the cable television subscribers in the United States.

(d) Manufacturers and importers shall provide in appropriate post-sale material that describes the features and functionality of the product, such as the owner's guide, the following language: "This digital television is capable of receiving analog basic, digital basic and digital premium cable television programming by direct connection to a cable system providing such programming. A security card provided by your cable operator is required to view encrypted digital programming. Certain advanced and interactive digital cable services such as video-on-demand, a cable operator's enhanced program guide and data-enhanced television services may require the use of a set-top box. For more information call your local cable operator."

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Part 76 of the Code of Federal Regulations is amended as follows:

PART 76 – MULTICHANNEL VIDEO AND CABLE TELEVISION SERVICE

4. The authority for Part 76 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 152, 153, 154, 301, 302, 303, 303a, 307, 308, 309, 312, 317, 325, 338, 339, 503, 521, 522, 531, 532, 533, 534, 535, 536, 537, 543, 544, 544a, 545, 548, 549, 552, 554, 556, 558, 560, 531, 571, 572, and 573.

5. Add §76.602 to subpart K to read as follows:

§76.602 Incorporations by Reference.

(a) The materials listed in this section are incorporated by reference in this part. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist

on the date of the approval, and notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC, at the Reference Information Center, Federal Communications Commission, 445 12th. St., SW, Room CY- A257, Washington, DC 20554

(b) The following materials are available for purchase from at least one of the following addresses: Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112 or at <http://global.ihs.com>; or American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY 10036 or at <http://webstore.ansi.org/ansidocstore/default.asp>; or Society of Cable Telecommunications Engineers at <http://www.scte.org/standards/index.cfm> ; or Advanced Television Systems Committee, 1750 K Street, NW, Suite 1200, Washington, DC 20006 or at <http://www.atsc.org/standards>

(1) ANSI/SCTE 26 2001 (formerly DVS 194). "Home Digital Network Interface Specification with Copy Protection," 2001, IBR approved for §76.640.

(2) SCTE 28 2003 (formerly DVS 295). "Host-POD Interface Standard," 2003, IBR approved for § 76 640

(3) SCTE 41 2003 (formerly DVS 301) "POD Copy Protection System," 2003, IBR approved for §76.640

(4) ANSI/SCTE 54 2003 (formerly DVS 241): "Digital Video Service Multiplex and Transport System Standard for Cable Television," 2003, IBR approved for §76.640

(5) ANSI/SCTE 65 2002 (formerly DVS 234): "Service Information Delivered Out-of-Band for Digital Cable Television," 2002, IBR approved for §76.640.

(6) CEA-931-A: "Remote Control Command Pass-through Standard for Home Networking," 2003, IBR approved for §76.640.

(7) SCTE 40 2003 (formerly DVS 313): "Digital Cable Network Interface Standard," 2003, IBR approved for §76.640

(8) ATSC Document A/65B: "ATSC Standard: Program and System Information Protocol for Terrestrial Broadcast and Cable (Revision B)," 2003, IBR approved for §76.640

(9) EIA IS-132 "Cable Television Channel Identification Plan," 1994, IBR approved for §76.605.

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6. Add §76.640 to subpart B to read as follows:

§76.640 Support for Unidirectional Digital Cable Products on Digital Cable Systems.

(a) The requirements of this section shall apply to digital cable systems. For purposes of this section, digital cable systems shall be defined as a cable system with one or more channels utilizing QAM modulation for transporting programs and services from its headend to receiving devices. Cable systems that only pass through 8 VSB broadcast signals shall not be considered digital cable systems.

(b) No later than July 1, 2004, cable operators shall support unidirectional digital cable products, as defined in §15.123 of this chapter, through the provisioning of Point-of-Deployment modules (PODs) and services, as follows:

(1) Digital cable systems with an activated channel capacity of 750 MHz or greater shall comply with the following technical standards and requirements:

(i) SCTE 40 2003 (formerly DVS 313): "Digital Cable Network Interface Standard" (incorporated by reference, see § 76.602), provided however that with respect to Table B 11, the Phase Noise requirement shall be -86 dB/Hz, and also provided that the "transit delay for most distant customer" requirement in Table B.3 is not mandatory

(ii) ANSI/SCTE 65 2002 (formerly DVS 234): "Service Information Delivered Out-of-Band for Digital Cable Television" (incorporated by reference, see § 76.602), provided however that the referenced Source Name Subtable shall be provided for Profiles 1, 2, and 3.

(iii) ANSI/SCTE 54 2003 (formerly DVS 241): "Digital Video Service Multiplex and Transport System Standard for Cable Television" (incorporated by reference, see § 76.602).

(iv) For each digital transport stream that includes one or more services carried in-the-clear, such transport stream shall include virtual channel data in-band in the form of ATSC Document A/65B: "ATSC Standard: Program and System Information Protocol for Terrestrial Broadcast and Cable (Revision B)" (incorporated by reference, see § 76.602), when available from the content provider. With respect to in-band transport:

(A) The data shall, at minimum, describe services carried within the transport stream carrying the PSIP data itself;

(B) PSIP data describing a twelve-hour time period shall be carried for each service in the transport stream. This twelve-hour period corresponds to delivery of the following event information tables: EIT-0, -1, -2 and -3;

(C) The format of event information data format shall conform to ATSC Document A/65B: "ATSC Standard: Program and System Information Protocol for Terrestrial Broadcast and Cable (Revision B)" (incorporated by reference, see § 76.602);

(D) Each channel shall be identified by a one-or two-part channel number and a textual channel name; and

(E) The total bandwidth for PSIP data may be limited by the cable system to 80 kbps for a 27 Mbits multiplex and 115 kbps for a 38.8 Mbits multiplex

(v) When service information tables are transmitted out-of-band for scrambled services.

(A) The data shall, at minimum, describe services carried within the transport stream carrying the PSIP data itself;

(B) A virtual channel table shall be provided via the extended channel interface from the POD module. Tables to be included shall conform to ANSI/SCTE 65 2002 (formerly DVS 234): "Service Information Delivered Out-of-Band for Digital Cable Television" (incorporated by reference, see § 76.602).

(C) Event information data when present shall conform to ANSI/SCTE 65 2002 (formerly DVS 234): "Service Information Delivered Out-of-Band for Digital Cable Television" (incorporated by reference, see § 76.602) (profiles 4 or higher).

(D) Each channel shall be identified by a one-or two-part channel number and a textual channel name; and

(E) The channel number identified with out-of-band signaling information data should match the channel identified with in-band PSIP data for all unscrambled in-the-clear services.

(2) All digital cable systems shall comply with:

(i) SCTE 28 2003 (formerly DVS 295): "Host-POD Interface Standard" (incorporated by reference, see § 76.602).

(ii) SCTE 41 2003 (formerly DVS 301): "POD Copy Protection System" (incorporated by reference, see § 76.602).

(3) Cable operators shall ensure, as to all digital cable systems, an

adequate supply of PODs that comply with the standards specified in paragraph (b)(2) of this section to ensure convenient access to such PODs by customers. Without limiting the foregoing, cable operators may provide more advanced PODs (i.e., PODs that are based on successor standards to those specified in paragraph (b)(2) of this section) to customers whose unidirectional digital cable products are compatible with the more advanced PODs.

(4) Cable operators shall:

(i) Effective April 1, 2004, upon request of a customer, replace any leased high definition set-top box, which does not include a functional IEEE 1394 interface, with one that includes a functional IEEE 1394 interface or upgrade the customer's set-top box by download or other means to ensure that the IEEE 1394 interface is functional.

(ii) Effective July 1, 2005, include both a DVI or HDMI interface and an IEEE 1394 interface on all high definition set-top boxes acquired by a cable operator for distribution to customers.

(iii) Ensure that these cable operator-provided high definition set-top boxes shall comply with ANSI/SCTE 26 2001 (formerly DVS 194). "Home Digital Network Interface Specification with Copy Protection" (incorporated by reference, see § 76.602), with transmission of bit-mapped graphics optional, and shall support the CEA-931-A. "Remote Control Command Pass-through Standard for Home Networking" (incorporated by reference, see § 76.602), pass through control commands tune function, mute function, and restore volume function. In addition these boxes shall support the power control commands (power on, power off, and status inquiry) defined in A/VC Digital Interface Command Set General Specification Version 4.0 (as referenced in ANSI/SCTE 26 2001 (formerly DVS 194). "Home Digital Network Interface Specification with Copy Protection" (incorporated by reference, see § 76.602)).

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7. Add subpart W to read as follows.

Subpart W – Encoding Rules

Sec.

76.1901 Applicability

76.1902 Definitions.

76.1903 Interfaces.

76.1904 Encoding Rules for Defined Business Models.

76.1905 Petitions to Modify Encoding Rules for New Services Within Defined Business Models

76.1906 Encoding Rules for Undefined Business Models.

76.1907 Temporary Bona Fide Trials.
76.1908 Certain Practices Not Prohibited.

§76.1901 Applicability

(a) Each multi-channel video programming distributor shall comply with the requirements of this subpart.

(b) This subpart shall not apply to distribution of any content over the Internet, nor to a multichannel video programming distributor's operations via cable modem or DSL.

(c) With respect to cable system operators, this subpart shall apply only to cable services. This subpart shall not apply to cable modem services, whether or not provided by a cable system operator or affiliate.

§76.1902 Definitions

(a) Commercial Advertising Messages shall mean, with respect to any service, Program, or schedule or group of Programs, commercial advertising messages other than: (1) advertising relating to such service itself or the programming contained therein, (2) interstitial programming relating to such service itself or the programming contained therein, or (3) any advertising which is displayed concurrently with the display of any part of such Program(s), including but not limited to "bugs," "frames" and "banners."

(b) Commercial Audiovisual Content shall mean works that consist of a series of related images which are intrinsically intended to be shown by the use of machines, or devices such as projectors, viewers, or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects, such as films or tapes, in which the works are embodied, transmitted by a Covered Entity and that are: (1) not created by the user of a Covered Product, and (2) offered for transmission, either generally or on demand, to subscribers or purchasers or the public at large or otherwise for commercial purposes, not uniquely to an individual or a small, private group.

(c) Commercially-Adopted Access Control Method shall mean any commercially-adopted access control method including digitally controlled analog scrambling systems, whether now or hereafter in commercial use.

(d) Copy Never shall mean, with respect to Commercial Audiovisual Content, the Encoding of such content so as to signal that such content may not to be copied by a Covered Product.

(e) Copy One Generation shall mean, with respect to Commercial Audiovisual Content, the Encoding of such content so as to permit a first generation of copies to be made by a Covered Product but

not copies of such first generation of copies.

(f) Copy No More shall mean, with respect to Commercial Audiovisual Content, the Encoding of such content so as to reflect that such content is a first generation copy of content Encoded as Copy One Generation and no further copies are permitted.

(g) Covered Product shall mean a device used by consumers to access Commercial Audiovisual Content offered by a Covered Entity (excluding delivery via cable modem or the Internet), and any device to which Commercial Audiovisual Content so delivered from such Covered Product may be passed, directly or indirectly.

(h) Covered Entity shall mean any entity that is subject to this subpart.

(i) Defined Business Model shall mean Video-on-Demand, Pay-Per View, Pay Television Transmission, Non-Premium Subscription Television, Free Conditional Access Delivery and Unencrypted Broadcast Television.

(j) Encode shall mean, in the transmission of Commercial Audiovisual Content, to pass, attach, embed, or otherwise apply to, associate with, or allow to persist in or remain associated with such content, data or information which when read or responded to in a Covered Device has the effect of preventing, pausing, or limiting copying, or constraining the resolution of a Program when output from the Covered Device.

(k) Encoding Rules shall mean the requirements or prohibitions describing or limiting Encoding of audiovisual content as set forth in this Rule.

(l) Free Conditional Access Delivery shall mean a delivery of a service, Program, or schedule or group of Programs via a Commercially-Adopted Access Control Method, where viewers are not charged any fee (other than government-mandated fees) for the reception or viewing of the programming contained therein, other than Unencrypted Broadcast Television

(m) Non-Premium Subscription Television shall mean a service, or schedule or group of Programs (which may be offered for sale together with other services, or schedule or group of Programs), for which subscribers are charged a subscription fee for the reception or viewing of the programming contained therein, other than Pay Television, Subscription-on-Demand and Unencrypted Broadcast Television. By way of example, "basic cable service" and "extended basic cable service" (other than Unencrypted Broadcast Television) are "Non-Premium Subscription Television."

(n) Pay-Per-View shall mean a delivery of a single Program or a specified group of Programs, as to which each such single Program is generally uninterrupted by Commercial Advertising Messages and for which recipients are charged a separate fee for each Program or specified group of Programs. The term Pay-Per-View shall also include delivery of a single Program as described above for which multiple start times are made available at time intervals which are less than the running time of such Program as a whole. If a given delivery qualifies both as Pay-Per-View and a Pay Television Transmission, then, for purposes of this Rule, such delivery shall be deemed Pay-Per-View rather than a Pay Television Transmission

(o) Pay Television Transmission shall mean a transmission of a service or schedule of Programs, as to which each individual Program is generally uninterrupted by Commercial Advertising Messages and for which service or schedule of Programs subscribing viewers are charged a periodic subscription fee, such as on a monthly basis, for the reception of such programming delivered by such service whether separately or together with other services or programming, during the specified viewing period covered by such fee. If a given delivery qualifies both as a Pay Television Transmission and Pay-Per-View, Video-on-Demand, or Subscription-on-Demand then, for purposes of this Rule, such delivery shall be deemed Pay-Per-View, Video-on-Demand or Subscription-on-Demand rather than a Pay Television Transmission.

(p) Program shall mean any work of Commercial Audiovisual Content

(q) Subscription-on-Demand shall mean the delivery of a single Program or a specified group of Programs for which: (1) a subscriber is able, at his or her discretion, to select the time for commencement of exhibition thereof, (2) where each such single Program is generally uninterrupted by Commercial Advertising Messages; and (3) for which Program or specified group of Programs subscribing viewers are charged a periodic subscription fee for the reception of programming delivered by such service during the specified viewing period covered by the fee. In the event a given delivery of a Program qualifies both as a Pay Television Transmission and Subscription-on-Demand, then for purposes of this Rule, such delivery shall be deemed Subscription-on-Demand rather than a Pay Television Transmission.

(r) Undefined Business Model shall mean a business model that does not fall within the definition of a Defined Business Model

(s) Unencrypted Broadcast Television means any service, Program, or schedule or group of Programs, that is a further transmission of a broadcast transmission (i.e., an over-the-air transmission for reception by the general public using radio frequencies allocated for that purpose) that substantially simultaneously is made by a terrestrial television broadcast station located within the country or territory in

which the entity further transmitting such broadcast transmission also is located, where such broadcast transmission is not subject to a Commercially- Adopted Access Control Method (e.g., is broadcast in the clear to members of the public receiving such broadcasts), regardless of whether such entity subjects such further transmission to an access control method.

(t) Video-on-Demand shall mean a delivery of a single Program or a specified group of Programs for which: (1) each such individual Program is generally uninterrupted by Commercial Advertising Messages; (2) recipients are charged a separate fee for each such single Program or specified group of Programs; and (3) a recipient is able, at his or her discretion, to select the time for commencement of exhibition of such individual Program or specified group of Programs. In the event a delivery qualifies as both Video-on-Demand and a Pay Television Transmission, then for purposes of this Rule, such delivery shall be deemed Video-on-Demand.

§76.1903 Interfaces

A Covered Entity shall not attach or embed data or information with Commercial Audiovisual Content, or otherwise apply to, associate with, or allow such data to persist in or remain associated with such content, so as to prevent its output through any analog or digital output authorized or permitted under license, law or regulation governing such Covered Product.

§76.1904 Encoding Rules for Defined Business Models

(a) Commercial Audiovisual Content delivered as Unencrypted Broadcast Television shall not be Encoded so as to prevent or limit copying thereof by Covered Products or, to constrain the resolution of the image when output from a Covered Product

(b) Except for a specific determination made by the Commission pursuant to a petition with respect to a Defined Business Model other than Unencrypted Broadcast Television, or an Undefined Business Model subject to the procedures set forth in §76 1906:

(1) Commercial Audiovisual Content shall not be Encoded so as to prevent or limit copying thereof except as follows

(i) to prevent or limit copying of Video-on-Demand or Pay-Per-View transmissions, subject to the requirements of paragraph (b)(2) of this section; and

(ii) to prevent or limit copying, other than first generation of copies, of Pay Television Transmissions, Non-Premium Subscription Television, and Free Conditional Access Delivery transmissions; and

(2) With respect to any Commercial Audiovisual Content delivered or transmitted in form of a Video-on-Demand or Pay-Per-View transmission, a Covered Entity shall not Encode such content so as to prevent a Covered Product, without further authorization, from pausing such content up to 90 minutes from initial transmission by the Covered Entity (e.g., frame-by-frame, minute-by-minute, megabyte by megabyte).

§76.1905 Petitions to Modify Encoding Rules for New Services Within Defined Business Models

(a) The Encoding Rules for Defined Business Models in §76.1904 reflect the conventional methods for packaging programs in the MVPD market as of December 31, 2002, and are presumed to be the appropriate rules for Defined Business Models. A Covered Entity may petition the Commission for approval to allow within a Defined Business Model, other than Unencrypted Broadcast Television, the Encoding of a new service in a manner different from the Encoding Rules set forth in §76.1904(b)(1)-(2). No such petition will be approved under the public interest test set forth below unless the new service differs from existing services provided by any Covered Entity under the applicable Defined Business Model prior to December 31, 2002.

(b) Petitions A petition to Encode a new service within a Defined Business Model other than as permitted by the Encoding Rules set forth in §76.1904(b)(1)-(2) shall describe:

(1) The Defined Business Model, the new service, and the proposed Encoding terms, including the use of Copy Never and Copy One Generation Encoding, and the Encoding of content with respect to "pause" set forth in §76.1904(b)(2)

(2) Whether the claimed benefit to consumers of the new service, including, but not limited to, the availability of content in earlier release windows, more favorable terms, innovation or original programming, outweighs the limitation on the consumers' control over the new service;

(3) The ways in which the new service differs from existing services offered by any Covered Entity within the applicable Defined Business Model prior to December 31, 2002;

(4) All other pertinent facts and considerations relied on to support a determination that grant of the Petition would serve the public interest.

(5) Factual allegations shall be supported by affidavit or declaration of a person or persons with actual knowledge of the facts, and exhibits shall be verified by the person who prepares them.

(c) Petition Process

(1) Public Notice. The Commission shall give public notice of any such Petition.

(2) Comments Interested persons may submit comments or oppositions to the petition within thirty (30) days after the date of public notice of the filing of such petition. Comments or oppositions shall be served on the petitioner and on all persons listed in petitioner's certificate of service, and shall contain a detailed full statement of any facts or considerations relied on. Factual allegations shall be supported by affidavit or declaration of a person or persons with actual knowledge of the facts, and exhibits shall be verified by the person who prepares them.

(3) Replies The petitioner may file a reply to the comments or oppositions within ten (10) days after their submission, which shall be served on all persons who have filed pleadings and shall also contain a detailed full showing, supported by affidavit or declaration, of any additional facts or considerations relied on. There shall be no further pleadings filed after petitioner's reply, unless authorized by the Commission.

(4) Commission Determination as to Encoding Rules for a new service within a Defined Business Model

(i) Proceedings initiated by petitions pursuant to this section shall be permit-but-disclose proceedings, unless otherwise specified by the Commission. The Covered Entity shall have the burden of proof to establish that the proposed change in Encoding Rules for a new service is in the public interest. In making its determination, the Commission shall take into account the following factors:

(A) Whether the benefit to consumers of the new service, including but not limited to earlier release windows, more favorable terms, innovation or original programming, outweighs the limitation on the consumers' control over the new service;

(B) Ways in which the new service differs from existing services offered by any Covered Entity within the applicable Defined Business Model prior to December 31, 2002; and

(ii) The Commission may specify other procedures, such as oral argument, evidentiary hearing, or further written submissions directed to particular aspects, as it deems appropriate.

(iii) A petition may, upon request of the petitioner, be dismissed without prejudice as a matter of right prior to the adoption date of any final action taken by the Commission with respect to the petition. A petitioner's request for the return of a petition will be regarded as a request for dismissal.

(d) Complaint Regarding a New Service Not Subject to Petition.

In an instance in which an interested party has a substantial basis to believe and does believe in good faith that a new service within a Defined Business Model has been launched without a petition as required by this Rule, such party may file a complaint pursuant to section 76.7 of the Commission's rules.

§76.1906 Encoding Rules for Undefined Business Models

(a) Upon public notice and subject to requirements as set forth herein, a Covered Entity may launch a program service pursuant to an Undefined Business Model. Subject to Commission review upon Complaint, the Covered Entity may initially Encode programs pursuant to such Undefined Business Model without regard to limitations set forth in §76.1904(b).

(1) Notice. Concurrent with the launch of an Undefined Business Model by a Covered Entity, the Covered Entity shall issue a press release to the PR Newswire so as to provide public notice of the Undefined Business Model, and the proposed Encoding terms. The notice shall provide a concise summary of the Commercial Audiovisual Content to be provided pursuant to the Undefined Business Model, and of the terms on which such content is to be available to consumers. Immediately upon request from a party entitled to be a Complainant, the Covered Entity shall make available information that indicates the proposed Encoding terms, including the use of Copy Never or Copy One Generation Encoding, and the Encoding of content with respect to "pause" as defined in §76.1904(b)(2).

(2) Complaint Process. Any interested party ("Complainant") may file a complaint with the Commission objecting to application of Encoding as set forth in the notice

(i) Pre-complaint resolution. Prior to initiating a complaint with the Commission under this subsection, the Complainant shall notify the Covered Entity that it may file a complaint under this subsection. The notice must be sufficiently detailed so that the Covered Entity can determine the specific nature of the potential complaint. The potential Complainant must allow a minimum of thirty (30) days from such notice before filing such complaint with the Commission. During this period the parties shall endeavor in good faith to resolve the issue(s) in dispute. If the parties fail to reach agreement within this 30 day period, Complainant may initiate a complaint in accordance with the procedures set forth herein

(ii) Complaint. Within two years of publication of a notice under paragraph (a)(1) of this section, a Complainant may file a complaint with the Commission objecting to application of the Encoding terms to the service at issue. Such complaint shall state with particularity the basis for objection to the Encoding terms.

(A) The complaint shall contain the name and address of the complainant and the name and address of the Covered Entity.

(B) The complaint shall be accompanied by a certification of service on the named Covered Entity.

(C) The complaint shall set forth with specificity all information and arguments relied upon. Specific factual allegations shall be supported by a declaration of a person or persons with actual knowledge of the facts, and exhibits shall be verified by the person who prepares them.

(D) The complaint shall set forth attempts made by the Complainant to resolve its complaint pursuant to paragraph (a)(2)(i) of this section.

(iii) Public Notice. The Commission shall give public notice of the filing of the complaint. Once the Commission has issued such public notice, any person otherwise entitled to be a Complainant shall instead have the status of a person submitting comments under paragraph (a)(2)(iv) of this section rather than a Complainant.

(iv) Comments and Reply.

(A) Any person may submit comments regarding the complaint within thirty (30) days after the date of public notice by the Commission. Comments shall be served on the Complainant and the Covered Entity and on any persons listed in relevant certificates of service, and shall contain a detailed full statement of any facts or considerations relied on. Specific factual allegations shall be supported by a declaration of a person or persons with actual knowledge of the facts, and exhibits shall be verified by the person who prepares them.

(B) The Covered Entity may file a Response to the Complaint and comments within twenty (20) days after the date that comments are due. Such Response shall be served on all persons who have filed complaints or comments and shall also contain a detailed full showing, supported by affidavit or declaration, of any additional facts or considerations relied on. Replies shall be due ten (10) days from the date for filing a Response.

(v) Basis for Commission determination as to encoding terms for an Undefined Business Model. In a permit-but-disclose proceeding, unless otherwise specified by the Commission, to determine whether Encoding terms as noticed may be applied to an Undefined Business Model, the Covered Entity shall have the burden of proof to establish that application of the Encoding terms in the Undefined Business Model is in the public interest. In making any such determination, the Commission shall take into account the following factors:

(A) Whether the benefit to consumers of the new service, including but not limited to earlier release windows, more favorable terms, innovation or original programming, outweighs the limitation on the consumers' control over the new service,

(B) Ways in which the new service differs from services offered by any Covered Entity prior to December 31, 2002;

(vi) Determination Procedures. The Commission may specify other procedures, such as oral argument, evidentiary hearing, or further written submissions directed to particular aspects, as it deems appropriate.

(b) Complaint Regarding a Service Not Subject to Notice. In an instance in which an interested party has a substantial basis to believe and believes in good faith that a service pursuant to an Undefined Business Model has been launched without requisite notice, such party may file a complaint pursuant to section 76.7 of the Commission's rules.

§76.1907 Temporary Bona Fide Trials

The obligations and procedures as to Encoding Rules set forth in §§76.1904(b)-(c) and §§76.1905(a)-(b) do not apply in the case of a temporary bona fide trial of a service

§76.1908 Certain Practices Not Prohibited

Nothing in this subpart shall be construed as prohibiting a Covered Entity from:

(a) encoding, storing or managing Commercial Audiovisual Content within its distribution system or within a Covered Product under the control of a Covered Entity's Commercially Adopted Access Control Method, provided that the outcome for the consumer from the application of the Encoding Rules set out in §§76.1904(a)-(b) is unchanged thereby when such Commercial Audiovisual Content is released to consumer control, or

(b) causing, with respect to a specific Covered Product, the output of content from such product in a format as necessary to match the display format of another device connected to such product, including but not limited to providing for content conversion between widely-used formats for the transport, processing and display of audiovisual signals or data, such as between analog and digital formats and between PAL and NTSC or RGB and Y,Pb,Pr

* * * * *

APPENDIX C

FINAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act of 1980, as amended ("RFA")¹ an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated in the *Further Notice of Proposed Rulemaking* ("FNPRM").² The Commission sought written public comment on the proposals in the *FNPRM*, including comment on the IRFA. Comments were received on the IRFA. This present Final Regulatory Flexibility Analysis ("FRFA") conforms to the RFA.³

A. Need for, and Objectives of, the Second Report and Order and Second Further Notice of Proposed Rulemaking. The need for FCC regulation in this area derives from the lack of a so-called cable compatibility "plug and play" standard for a digital cable television receiver and related digital cable television consumer electronics equipment. The absence of such a standard has been identified as a key impediment to the anticipated rate and scope of the transition to digital television ("DTV"). Such a standard would allow consumers to directly attach their DTV receivers to cable systems and receive certain cable television services without the need for an external navigation device. Since more than sixty percent of television households subscribe to cable programming services, the availability of digital cable television receivers and products would encourage more consumers to convert to DTV, thereby furthering the transition. Private industry negotiations between cable operators and consumer electronics manufacturers resulted in a Memorandum of Understanding ("MOU") on a cable compatibility standard for an integrated, unidirectional digital cable television receiver, as well as for other unidirectional digital cable products. The MOU requires the consumer electronics and cable television industries to each commit to certain voluntary acts and sought the creation or revision of certain relevant Commission rules. The objective of the final rules, as set forth in the *Second Report and Order* portion of the *Second Report and Order and Further Notice of Proposed Rulemaking* ("*Second Report and Order*"), is to facilitate the DTV transition.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA. The Commission received comments from the American Cable Association ("ACA") in response to the IRFA accompanying the *FNPRM*. In these comments, ACA expresses its support for the Commission's efforts to advance the DTV transition, but asks that the Commission take into account the special circumstances of smaller cable companies in this proceeding. Specifically, ACA asks that the Commission consider: (1) the costs of compliance for smaller cable systems, (2) how plug-and-play requirements might affect smaller cable systems that use Comcast's Headend-in-the-Sky ("HITS") programming, and (3) why some of the plug-and-play requirements are limited to systems having 750 MHz activated channel capacity or higher, while other requirements apply to all digital cable systems.⁴ To the extent that the Commission determines that there would be a disparate cost impact upon small cable systems, ACA asks that the Commission consider waivers and an extended phase-in for small system

¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² *Implementation of Section 304 of the Telecommunications Act of 1996 Commercial Availability of Navigation Devices*, 18 FCC Rcd 518 (2003) ("FNPRM").

³ See 5 U.S.C. § 604.

⁴ ACA IRFA Comments at 2.

compliance.⁵ We have discussed compliance impacts in this FRFA in Sections D and E, *infra*.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules.⁶ The RFA generally defines the term "small entity" as encompassing the terms "small business," "small organization," and "small governmental entity."⁷ In addition, the term "small Business" has the same meaning as the term "small business concern" under the Small Business Act.⁸ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration ("SBA").⁹

Television Broadcasting. The Small Business Administration defines a television broadcasting station that has no more than \$12 million in annual receipts as a small business.¹⁰ Business concerns included in this industry are those "primarily engaged in broadcasting images together with sound."¹¹ According to Commission staff review of the BIA Publications, Inc. Master Access Television Analyzer Database as of May 16, 2003, about 814 of the 1,220 commercial television stations in the United States have revenues of \$12 million or less. We note, however, that, in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations¹² must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. There are

⁵ ACA IRFA Comments at 3.

⁶ 5 U.S.C. § 603(b)(3)

⁷ 5 U.S.C. § 601(6)

⁸ 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

⁹ 15 U.S.C. § 632

¹⁰ See OMB, North American Industry Classification System: United States, 1997 at 509 (1997) (NAICS code 513120, which was changed to code 515120 in October 2002)

¹¹ OMB, North American Industry Classification System: United States, 1997, at 509 (1997) (NAICS code 513120, which was changed to code 51520 in October 2002). This category description continues, "These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public. These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule. Programming may originate in their own studios, from an affiliated network, or from external sources." Separate census categories pertain to businesses primarily engaged in producing programming. See *id.* at 502-05, NAICS code 51210 Motion Picture and Video Production, code 512120, Motion Picture and Video Distribution, code 512191, Teleproduction and Other Post-Production Services, and code 512199, Other Motion Picture and Video Industries

¹² "Concerns are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has to power to control both." 13 C.F.R. § 121.103(a)(1)

also 2,127 low power television stations (LPTV).¹³ Given the nature of this service, we will presume that all LPTV licensees qualify as small entities under the SBA definition.

In addition, an element of the definition of "small business" is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply do not exclude any television station from the definition of a small business on this basis and are therefore over-inclusive to that extent. Also as noted, an additional element of the definition of "small business" is that the entity must be independently owned and operated. We note that it is difficult at times to assess these criteria in the context of media entities and our estimates of small businesses to which they apply may be over-inclusive to this extent.

Cable and Other Program Distribution. The SBA has developed a small business size standard for cable and other program distribution services, which includes all such companies generating \$12.5 million or less in revenue annually.¹⁴ This category includes, among others, cable operators, direct broadcast satellite ("DBS") services, home satellite dish ("HSD") services, multipoint distribution services ("MDS"), multichannel multipoint distribution service ("MMDS"), Instructional Television Fixed Service ("ITFS"), local multipoint distribution service ("LMDS"), satellite master antenna television ("SMATV") systems, and open video systems ("OVS"). According to the Census Bureau data, there are 1,311 total cable and other pay television service firms that operate throughout the year of which 1,180 have less than \$10 million in revenue.¹⁵ We address below each service individually to provide a more precise estimate of small entities.

Cable Operators. The Commission has developed, with SBA's approval, our own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a "small cable company" is one serving fewer than 400,000 subscribers nationwide.¹⁶ We last estimated that there were 1,439 cable operators that qualified as small cable companies.¹⁷ Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 1,439 small entity cable system operators that may be affected by the decisions and rules proposed in this Further Notice.

¹³ FCC News Release, "Broadcast Station Totals as of September 30, 2002"

¹⁴ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220). This NAICS code applies to all services listed in this paragraph.

¹⁵ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Subject Series – Establishment and Firm Size, Information Sector 51, Table 4 at 50 (2000). The amount of \$10 million was used to estimate the number of small business firms because the relevant Census categories stopped at \$9,999,999 and began at \$10,000,000. No category for \$12.5 million existed. Thus, the number is as accurate as it is possible to calculate with the available information.

¹⁶ 47 C.F.R. § 76.901(e). The Commission developed this definition based on its determinations that a small cable system operator is one with annual revenues of \$100 million or less. *Sixth Report and Order and Eleventh Order on Reconsideration*, 10 FCC Rcd 7393 (1995).

¹⁷ Paul Kagan Associates, Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

The Communications Act, as amended, also contains a size standard for a small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1% of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."¹⁸ The Commission has determined that there are 68,500,000 subscribers in the United States. Therefore, an operator serving fewer than 685,000 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed \$250 million in the aggregate.¹⁹ Based on available data, we find that the number of cable operators serving 685,000 subscribers or less totals approximately 1,450.²⁰ Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

Direct Broadcast Satellite ("DBS") Service. Because DBS provides subscription services, DBS falls within the SBA-recognized definition of cable and other program distribution services.²¹ This definition provides that a small entity is one with \$12.5 million or less in annual receipts.²² There are four licensees of DBS services under Part 100 of the Commission's Rules. Three of those licensees are currently operational. Two of the licensees that are operational have annual revenues that may be in excess of the threshold for a small business.²³ The Commission, however, does not collect annual revenue data for DBS and, therefore, is unable to ascertain the number of small DBS licensees that could be impacted by these proposed rules. DBS service requires a great investment of capital for operation, and we acknowledge, despite the absence of specific data on this point, that there are entrants in this field that may not yet have generated \$12.5 million in annual receipts, and therefore may be categorized as a small business, if independently owned and operated.

Home Satellite Dish ("HSD") Service. Because HSD provides subscription services, HSD falls within the SBA-recognized definition of cable and other program distribution services.²⁴ This definition provides that a small entity is one with \$12.5 million or less in annual receipts.²⁵ The market for HSD service is difficult to quantify. Indeed, the service itself bears little resemblance to other MVPDs. HSD owners have access to more than 265 channels of programming placed on C-band satellites by programmers for receipt and distribution by MVPDs, of which 115 channels are scrambled and approximately 150 are unscrambled.²⁶ HSD owners can watch unscrambled channels without paying a subscription fee. To receive scrambled

¹⁸ 47 U.S.C. § 543(m)(2)

¹⁹ 47 C.F.R. § 76.1403(b)

²⁰ Paul Kagan Associates, Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

²¹ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220)

²² *Id.*

²³ *Id.*

²⁴ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220).

²⁵ *Id.*

²⁶ *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 12 FCC Rcd 4358, 4385 (1996) ("Third Annual Report")

channels, however, an HSD owner must purchase an integrated receiver-decoder from an equipment dealer and pay a subscription fee to an HSD programming package. Thus, HSD users include: (1) viewers who subscribe to a packaged programming service, which affords them access to most of the same programming provided to subscribers of other MVPDs; (2) viewers who receive only non-subscription programming; and (3) viewers who receive satellite programming services illegally without subscribing. Because scrambled packages of programming are most specifically intended for retail consumers, these are the services most relevant to this discussion.²⁷

Multipoint Distribution Service ("MDS"), Multichannel Multipoint Distribution Service ("MMDS") Instructional Television Fixed Service ("ITFS") and Local Multipoint Distribution Service ("LMDS"). MMDS systems, often referred to as "wireless cable," transmit video programming to subscribers using the microwave frequencies of the MDS and ITFS.²⁸ LMDS is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.²⁹

In connection with the 1996 MDS auction, the Commission defined small businesses as entities that had annual average gross revenues of less than \$40 million in the previous three calendar years.³⁰ This definition of a small entity in the context of MDS auctions has been approved by the SBA.³¹ The MDS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas ("BTAs"). Of the 67 auction winners, 61 met the definition of a small business. MDS also includes licensees of stations authorized prior to the auction. As noted, the SBA has developed a definition of small entities for pay television services, which includes all such companies generating \$12.5 million or less in annual receipts.³² This definition includes multipoint distribution services, and thus applies to MDS licensees and wireless cable operators that did not participate in the MDS auction. Information available to us indicates that there are approximately 850 of these licensees and operators that do not generate revenue in excess of \$12.5 million annually. Therefore, for purposes of the IRFA, we find there are approximately 850 small MDS providers as defined by the SBA and the Commission's auction rules.

The SBA definition of small entities for cable and other program distribution services, which includes such companies generating \$12.5 million in annual receipts, seems reasonably applicable to ITFS.³³ There are presently 2,032 ITFS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in the definition of a small

²⁷ *Id.* at 4385.

²⁸ *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, 10 FCC Rcd at 9589, 9593 (1995) ("ITFS Order")

²⁹ *See Local Multipoint Distribution Service*, 12 FCC Rcd 12545 (1997) ("LMDS Order")

³⁰ 47 C.F.R. § 21.961(b)(1)

³¹ *See ITFS Order*, 10 FCC Rcd at 9589.

³² 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220)

³³ *Id.*

business.³⁴ However, we do not collect annual revenue data for ITFS licensees, and are not able to ascertain how many of the 100 non-educational licensees would be categorized as small under the SBA definition. Thus, we tentatively conclude that at least 1,932 licensees are small businesses.

Additionally, the auction of the 1,030 LMDS licenses began on February 18, 1998, and closed on March 25, 1998. The Commission defined "small entity" for LMDS licenses as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.³⁵ An additional classification for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding calendar years.³⁶ These regulations defining "small entity" in the context of LMDS auctions have been approved by the SBA.³⁷ There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 40 winning bidders. Based on this information, we conclude that the number of small LMDS licenses will include the 93 winning bidders in the first auction and the 40 winning bidders in the re-auction, for a total of 133 small entity LMDS providers as defined by the SBA and the Commission's auction rules.

In sum, there are approximately a total of 2,000 MDS/MMDS/LMDS stations currently licensed. Of the approximate total of 2,000 stations, we estimate that there are 1,595 MDS/MMDS/LMDS providers that are small businesses as deemed by the SBA and the Commission's auction rules.

Satellite Master Antenna Television ("SMATV") Systems. The SBA definition of small entities for cable and other program distribution services includes SMATV services and, thus, small entities are defined as all such companies generating \$12.5 million or less in annual receipts.³⁸ Industry sources estimate that approximately 5,200 SMATV operators were providing service as of December 1995.³⁹ Other estimates indicate that SMATV operators serve approximately 1.5 million residential subscribers as of July 2001.⁴⁰ The best available estimates indicate that the largest SMATV operators serve between 15,000 and 55,000 subscribers each. Most SMATV operators serve approximately 3,000-4,000 customers. Because these operators are not rate regulated, they are not required to file financial data with the Commission. Furthermore, we are not aware of any privately published financial information regarding these operators. Based on the estimated number of operators and the estimated number of units served by the largest ten SMATVs, we believe that a substantial number of SMATV operators qualify as

³⁴ SBREFA also applies to nonprofit organizations and governmental organizations such as cities, counties, towns, townships, villages, school districts, or special districts, with populations of less than 50,000. 5 U S C § 601(5).

³⁵ See *LMDS Order*, 12 FCC Rcd at 12545.

³⁶ *Id*

³⁷ See Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau (FCC) from A. Alvarez, Administrator, SBA (January 6, 1998).

³⁸ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220).

³⁹ See *Third Annual Report*, 12 FCC Rcd at 4403-4.

⁴⁰ See *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 17 FCC Rcd 1244, 1281 (2001) ("*Eighth Annual Report*").

small entities

Open Video Systems ("OVS"). Because OVS operators provide subscription services,⁴¹ OVS falls within the SBA-recognized definition of cable and other program distribution services.⁴² This definition provides that a small entity is one with \$ 12.5 million or less in annual receipts.⁴³ The Commission has certified 25 OVS operators with some now providing service. Affiliates of Residential Communications Network, Inc. ("RCN") received approval to operate OVS systems in New York City, Boston, Washington, D.C. and other areas. RCN has sufficient revenues to assure us that they do not qualify as small business entities. Little financial information is available for the other entities authorized to provide OVS that are not yet operational. Given that other entities have been authorized to provide OVS service but have not yet begun to generate revenues, we conclude that at least some of the OVS operators qualify as small entities.

Electronics Equipment Manufacturers. Rules adopted in this proceeding could apply to manufacturers of DTV receiving equipment and other types of consumer electronics equipment. The SBA has developed definitions of small entity for manufacturers of audio and video equipment⁴⁴ as well as radio and television broadcasting and wireless communications equipment.⁴⁵ These categories both include all such companies employing 750 or fewer employees. The Commission has not developed a definition of small entities applicable to manufacturers of electronic equipment used by consumers, as compared to industrial use by television licensees and related businesses. Therefore, we will utilize the SBA definitions applicable to manufacturers of audio and visual equipment and radio and television broadcasting and wireless communications equipment, since these are the two closest NAICS Codes applicable to the consumer electronics equipment manufacturing industry. However, these NAICS categories are broad and specific figures are not available as to how many of these establishments manufacture consumer equipment. According to the SBA's regulations, an audio and visual equipment manufacturer must have 750 or fewer employees in order to qualify as a small business concern.⁴⁶ Census Bureau data indicates that there are 554 U.S. establishments that manufacture audio and visual equipment, and that 542 of these establishments have fewer than 500 employees and would be classified as small entities.⁴⁷ The remaining 12 establishments have 500 or more employees, however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. Under the SBA's regulations, a radio and television broadcasting and wireless communications equipment manufacturer must also have 750 or fewer employees in order to qualify as a small business

⁴¹ See 47 U.S.C. § 573.

⁴² 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220)

⁴³ *Id.*

⁴⁴ 13 CFR § 121.201, NAICS code 334310

⁴⁵ 13 CFR § 121.201, NAICS code 334220

⁴⁶ 13 CFR § 121.201, NAICS code 334310

⁴⁷ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Audio and Video Equipment Manufacturing, Table 4 at 9 (1999). The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees. No category for 750 employees existed. Thus, the number is as accurate as it is possible to calculate with the available information.

concern.⁴⁸ Census Bureau data indicates that there 1,215 U.S. establishments that manufacture radio and television broadcasting and wireless communications equipment, and that 1,150 of these establishments have fewer than 500 employees and would be classified as small entities.⁴⁹ The remaining 65 establishments have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. We therefore conclude that there are no more than 542 small manufacturers of audio and visual electronics equipment and no more than 1,150 small manufacturers of radio and television broadcasting and wireless communications equipment for consumer/household use.

Computer Manufacturers. The Commission has not developed a definition of small entities applicable to computer manufacturers. Therefore, we will utilize the SBA definition of electronic computers manufacturing. According to SBA regulations, a computer manufacturer must have 1,000 or fewer employees in order to qualify as a small entity.⁵⁰ Census Bureau data indicates that there are 563 firms that manufacture electronic computers and of those, 544 have fewer than 1,000 employees and qualify as small entities.⁵¹ The remaining 19 firms have 1,000 or more employees. We conclude that there are approximately 544 small computer manufacturers.

⁴⁸ 13 C.F.R. § 121.201, NAICS code 334220.

⁴⁹ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, Table 4 at 9 (1999). The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees. No category for 750 employees existed. Thus, the number is as accurate as it is possible to calculate with the available information.

⁵⁰ 13 C.F.R. § 121.201, NAICS code 334111.

⁵¹ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Electronic Computer Manufacturing, Table 4 at 9 (1999).

D. Description of Projected Reporting, Recordkeeping and other Compliance Requirements. The final rules set technical and other criteria that manufacturers would have to meet in order to label or market unidirectional digital cable televisions and other unidirectional digital cable products as “digital cable ready.” This regime includes testing and self-certification standards. The final rules also require consumer information disclosures to purchasers of unidirectional digital cable televisions receivers in appropriate post-sale materials that describe the functionality of these devices and the need to obtain a security module from their cable operator. Cable operators with digital systems of 750 MHz or greater activated channel capacity will be required to support operation of unidirectional digital cable products on digital cable systems. Certain other technical support requirements apply to all digital cable systems, regardless of channel capacity, including those systems whose only digital programming comes from HITS. In addition, all cable operators will be required to supply digital subscribers with point-of-deployment modules (“PODs”) and high definition set-top boxes that comply with certain technical standards by April 1, 2004 and July 1, 2005 deadlines.⁵² Finally, all MVPDs would be prohibited from encoding content to activate selectable output controls on consumer premises equipment, or the down-resolution of unencrypted broadcast television programming. MVPDs would also be limited in the levels of copy protection that could be applied to various categories of programming

E. Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards, and (4) an exemption from coverage of the rule, or any part thereof, for small entities.⁵³

Because the “digital cable ready” labeling regime does not require manufacturers to affix a label to devices, we do not anticipate that small manufacturers will be significantly affected. Although the consumer information disclosure in post-sale is mandatory, we do not believe that it will adversely affect small manufacturers since they already include owner’s manuals and other documentation inside equipment packaging.

The record in this proceeding did not provide the Commission with detailed cost information on the digital cable system support requirements. In an effort to take into account the concerns of small cable systems, the Commission has indicated that it will consider waiver requests for these requirements on a case-by-case basis. As to the POD-provisioning mandate, cable operators are already required to provide PODs to subscribers by request. We therefore do not believe that the new provisioning requirements will have a significant impact on small cable systems. Likewise, we anticipate that the upcoming high definition set-top box deadlines will not negatively impact small operators since the 2004 deadline only applies to output upgrades upon subscriber request, and the 2005 deadline will only apply to inventory acquired after that date.

Finally, we anticipate that the encoding prohibitions on selectable output controls and the down-resolution of unencrypted broadcast programming will largely impact upon the DBS

⁵² *Proposed Technical Rules* at 1-6

⁵³ 5 U.S.C. § 603(b)

industry, which is primarily composed of large entities. While the caps on copy protection will affect all MVPDs, we do not believe they will negatively impact small entities.

F. Federal Rules Which Duplicate, Overlap, or Conflict with the Commission's Proposals. None.

Report to Congress: The Commission will send a copy of the *Second Report and Order*, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.⁵⁴ In addition, the Commission will send a copy of the *Second Report and Order*, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *Second Report and Order* and FRFA (or summaries thereof) will also be published in the Federal Register.⁵⁵

⁵⁴ See 5 U.S.C. § 801(a)(1)(A).

⁵⁵ See 5 U.S.C. § 604(b)

APPENDIX D

INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act of 1980, as amended ("RFA")¹ the Commission has prepared this present Initial Regulatory Flexibility Analysis ("IRFA") of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the *Second Further Notice of Proposed Rulemaking* portion of this item. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Second Further Notice of Proposed Rulemaking* portion of this item provided in paragraph 91. The Commission will send a copy of this entire *Second Order and Second Further Notice of Proposed Rulemaking* ("Second Report and Order and Second Further Notice"), including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration ("SBA").² In addition, the *Second Further Notice of Proposed Rulemaking* portion of this item and the IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposed Rules. In connection with the Commission's efforts to ensure the commercial availability of navigation devices pursuant to Section 629 of the Communication's Act,⁴ the *Second Report and Order* part of the *Second Report and Order and Second Further Notice* adopts technical, labeling and encoding rules which will set a one-way specification for digital cable "plug and play" compatibility for DTV equipment. The negotiations between the consumer electronics and cable television industries which led to the agreement underlying these rules call for the cable television industry to make initial determinations about which new device connectors and associated content protection technologies may be used in connection with unidirectional digital cable products produced under this specification. Commenters have indicated that the cable industry should not be the sole arbiter of such decisions, however, the record currently before the Commission is insufficient on this matter. In order to ensure the connectivity and interoperability of unidirectional digital cable products, and to fulfill the Commission's commercial availability mandate under Section 629, we are initiating the *Second Further Notice* to seek comment on the mechanisms and standards by which new connectors and associated content protection technologies can be approved for use in this context. The *Second Further Notice* also seeks comment on: (1) the potential extension of the transmission requirements applicable to digital cable systems with an activated channel capacity of 750 MHz or higher to digital cable systems with an activated channel capacity of 550 MHz or higher; (2) whether it is necessary to require consumer electronics manufacturers to provide pre-sale information to consumers regarding the functionalities of unidirectional digital cable televisions; and (3) whether the Commission should ban or permit the down-resolution of non-broadcast MVPD programming.

B. Legal Basis. The authority for this proposed rulemaking is contained in Sections 1, 4(i) and (j), 303, 403, 601, 624A and 629 of the Communications Act of 1934, 47 U.S.C §§

¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub L. No 104-121, Title II, 110 Stat. 857 (1996).

² See 5 U.S.C § 603(a).

³ See 5 U.S.C. § 603(a)

⁴ See 47 U.S.C § 629

151, 154(i) and (j), 303, 403, 521, 544a and 549.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules.⁵ The RFA generally defines the term "small entity" as encompassing the terms "small business," "small organization," and "small governmental entity."⁶ In addition, the term "small Business" has the same meaning as the term "small business concern" under the Small Business Act.⁷ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration ("SBA").⁸

Television Broadcasting. The Small Business Administration defines a television broadcasting station that has no more than \$12 million in annual receipts as a small business.⁹ Business concerns included in this industry are those "primarily engaged in broadcasting images together with sound."¹⁰ According to Commission staff review of the BIA Publications, Inc. Master Access Television Analyzer Database as of May 16, 2003, about 814 of the 1,220 commercial television stations in the United States have revenues of \$12 million or less. We note, however, that, in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations¹¹ must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. There are also 2,127 low power television stations (LPTV).¹² Given the nature of this service, we

⁵ 5 U.S.C. § 603(b)(3)

⁶ 5 U.S.C. § 601(6)

⁷ 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

⁸ 15 U.S.C. § 632.

⁹ See OMB, North American Industry Classification System. United States, 1997 at 509 (1997) (NAICS code 513120, which was changed to code 515120 in October 2002)

¹⁰ OMB, North American Industry Classification System. United States, 1997, at 509 (1997) (NAICS code 513120, which was changed to code 51520 in October 2002). This category description continues, "These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public. These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule. Programming may originate in their own studios, from an affiliated network, or from external sources." Separate census categories pertain to businesses primarily engaged in producing programming. See *id.* at 502-05, NAICS code 51210. Motion Picture and Video Production: code 512120, Motion Picture and Video Distribution, code 512191, Teleproduction and Other Post-Production Services, and code 512199, Other Motion Picture and Video Industries

¹¹ "Concerns are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has to power to control both." 13 C.F.R. § 121.103(a)(1)

¹² FCC News Release, "Broadcast Station Totals as of September 30, 2002"

will presume that all LPTV licensees qualify as small entities under the SBA definition.

In addition, an element of the definition of "small business" is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply do not exclude any television station from the definition of a small business on this basis and are therefore over-inclusive to that extent. Also as noted, an additional element of the definition of "small business" is that the entity must be independently owned and operated. We note that it is difficult at times to assess these criteria in the context of media entities and our estimates of small businesses to which they apply may be over-inclusive to this extent.

Cable and Other Program Distribution. The SBA has developed a small business size standard for cable and other program distribution services, which includes all such companies generating \$12.5 million or less in revenue annually.¹³ This category includes, among others, cable operators, direct broadcast satellite ("DBS") services, home satellite dish ("HSD") services, multipoint distribution services ("MDS"), multichannel multipoint distribution service ("MMDS"), Instructional Television Fixed Service ("ITFS"), local multipoint distribution service ("LMDS"), satellite master antenna television ("SMATV") systems, and open video systems ("OVS"). According to the Census Bureau data, there are 1,311 total cable and other pay television service firms that operate throughout the year of which 1,180 have less than \$10 million in revenue.¹⁴ We address below each service individually to provide a more precise estimate of small entities.

Cable Operators. The Commission has developed, with SBA's approval, our own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a "small cable company" is one serving fewer than 400,000 subscribers nationwide.¹⁵ We last estimated that there were 1,439 cable operators that qualified as small cable companies.¹⁶ Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 1,439 small entity cable system operators that may be affected by the decisions and rules proposed in this Further Notice.

The Communications Act, as amended, also contains a size standard for a small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1% of all subscribers in the United States and is not affiliated with any

¹³ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220) This NAICS code applies to all services listed in this paragraph

¹⁴ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Subject Series – Establishment and Firm Size, Information Sector 51, Table 4 at 50 (2000). The amount of \$10 million was used to estimate the number of small business firms because the relevant Census categories stopped at \$9,999,999 and began at \$10,000,000. No category for \$12.5 million existed. Thus, the number is as accurate as it is possible to calculate with the available information.

¹⁵ 47 C.F.R. § 76.901(e) The Commission developed this definition based on its determinations that a small cable system operator is one with annual revenues of \$100 million or less. *Sixth Report and Order and Eleventh Order on Reconsideration*, 10 FCC Rcd 7393 (1995)

¹⁶ Paul Kagan Associates, Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995)

entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."¹⁷ The Commission has determined that there are 68,500,000 subscribers in the United States. Therefore, an operator serving fewer than 685,000 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed \$250 million in the aggregate.¹⁸ Based on available data, we find that the number of cable operators serving 685,000 subscribers or less totals approximately 1,450.¹⁹ Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

Direct Broadcast Satellite ("DBS") Service. Because DBS provides subscription services, DBS falls within the SBA-recognized definition of cable and other program distribution services.²⁰ This definition provides that a small entity is one with \$12.5 million or less in annual receipts.²¹ There are four licensees of DBS services under Part 100 of the Commission's Rules. Three of those licensees are currently operational. Two of the licensees that are operational have annual revenues that may be in excess of the threshold for a small business.²² The Commission, however, does not collect annual revenue data for DBS and, therefore, is unable to ascertain the number of small DBS licensees that could be impacted by these proposed rules. DBS service requires a great investment of capital for operation, and we acknowledge, despite the absence of specific data on this point, that there are entrants in this field that may not yet have generated \$12.5 million in annual receipts, and therefore may be categorized as a small business, if independently owned and operated.

Home Satellite Dish ("HSD") Service. Because HSD provides subscription services, HSD falls within the SBA-recognized definition of cable and other program distribution services.²³ This definition provides that a small entity is one with \$12.5 million or less in annual receipts.²⁴ The market for HSD service is difficult to quantify. Indeed, the service itself bears little resemblance to other MVPDs. HSD owners have access to more than 265 channels of programming placed on C-band satellites by programmers for receipt and distribution by MVPDs, of which 115 channels are scrambled and approximately 150 are unscrambled.²⁵ HSD owners can watch unscrambled channels without paying a subscription fee. To receive scrambled channels, however, an HSD owner must purchase an integrated receiver-decoder from an equipment dealer and pay a subscription fee to an HSD programming package. Thus, HSD users include: (1) viewers who subscribe to a packaged programming service, which affords them

¹⁷ 47 U.S.C. § 543(m)(2).

¹⁸ 47 C.F.R. § 76.1403(b).

¹⁹ Paul Kagan Associates, Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

²⁰ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220).

²¹ *Id.*

²² *Id.*

²³ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220).

²⁴ *Id.*

²⁵ *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 12 FCC Rcd 4358, 4385 (1996) ("Third Annual Report").

access to most of the same programming provided to subscribers of other MVPDs, (2) viewers who receive only non-subscription programming; and (3) viewers who receive satellite programming services illegally without subscribing. Because scrambled packages of programming are most specifically intended for retail consumers, these are the services most relevant to this discussion.²⁶

Multipoint Distribution Service ("MDS"), Multichannel Multipoint Distribution Service ("MMDS") Instructional Television Fixed Service ("ITFS") and Local Multipoint Distribution Service ("LMDS"). MMDS systems, often referred to as "wireless cable," transmit video programming to subscribers using the microwave frequencies of the MDS and ITFS.²⁷ LMDS is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.²⁸

In connection with the 1996 MDS auction, the Commission defined small businesses as entities that had annual average gross revenues of less than \$40 million in the previous three calendar years.²⁹ This definition of a small entity in the context of MDS auctions has been approved by the SBA.³⁰ The MDS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas ("BTAs"). Of the 67 auction winners, 61 met the definition of a small business. MDS also includes licensees of stations authorized prior to the auction. As noted, the SBA has developed a definition of small entities for pay television services, which includes all such companies generating \$12.5 million or less in annual receipts.³¹ This definition includes multipoint distribution services, and thus applies to MDS licensees and wireless cable operators that did not participate in the MDS auction. Information available to us indicates that there are approximately 850 of these licensees and operators that do not generate revenue in excess of \$12.5 million annually. Therefore, for purposes of the IRFA, we find there are approximately 850 small MDS providers as defined by the SBA and the Commission's auction rules.

The SBA definition of small entities for cable and other program distribution services, which includes such companies generating \$12.5 million in annual receipts, seems reasonably applicable to ITFS.³² There are presently 2,032 ITFS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in the definition of a small business.³³ However, we do not collect annual revenue data for ITFS licensees, and are not able

²⁶ *Id.* at 4385

²⁷ *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, 10 FCC Rcd at 9589, 9593 (1995) ("ITFS Order")

²⁸ *See Local Multipoint Distribution Service*, 12 FCC Rcd 12545 (1997) ("LMDS Order")

²⁹ 47 C.F.R. § 21.961(b)(1).

³⁰ *See ITFS Order*, 10 FCC Rcd at 9589

³¹ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220)

³² *Id.*

³³ SBREFA also applies to nonprofit organizations and governmental organizations such as cities, counties, towns, townships, villages, school districts, or special districts, with populations of less than 50,000. 5 U.S.C. § 601(5)

to ascertain how many of the 100 non-educational licensees would be categorized as small under the SBA definition. Thus, we tentatively conclude that at least 1,932 licensees are small businesses.

Additionally, the auction of the 1,030 LMDS licenses began on February 18, 1998, and closed on March 25, 1998. The Commission defined "small entity" for LMDS licenses as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.³⁴ An additional classification for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding calendar years.³⁵ These regulations defining "small entity" in the context of LMDS auctions have been approved by the SBA.³⁶ There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 40 winning bidders. Based on this information, we conclude that the number of small LMDS licenses will include the 93 winning bidders in the first auction and the 40 winning bidders in the re-auction, for a total of 133 small entity LMDS providers as defined by the SBA and the Commission's auction rules.

In sum, there are approximately a total of 2,000 MDS/MMDS/LMDS stations currently licensed. Of the approximate total of 2,000 stations, we estimate that there are 1,595 MDS/MMDS/LMDS providers that are small businesses as deemed by the SBA and the Commission's auction rules.

Satellite Master Antenna Television ("SMATV") Systems. The SBA definition of small entities for cable and other program distribution services includes SMATV services and, thus, small entities are defined as all such companies generating \$12.5 million or less in annual receipts.³⁷ Industry sources estimate that approximately 5,200 SMATV operators were providing service as of December 1995.³⁸ Other estimates indicate that SMATV operators serve approximately 1.5 million residential subscribers as of July 2001.³⁹ The best available estimates indicate that the largest SMATV operators serve between 15,000 and 55,000 subscribers each. Most SMATV operators serve approximately 3,000-4,000 customers. Because these operators are not rate regulated, they are not required to file financial data with the Commission. Furthermore, we are not aware of any privately published financial information regarding these operators. Based on the estimated number of operators and the estimated number of units served by the largest ten SMATVs, we believe that a substantial number of SMATV operators qualify as small entities

Open Video Systems ("OVS"). Because OVS operators provide subscription services,⁴⁰

³⁴ See *LMDS Order*, 12 FCC Rcd at 12545.

³⁵ *Id.*

³⁶ See Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau (FCC) from A. Alvarez, Administrator, SBA (January 6, 1998).

³⁷ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220).

³⁸ See *Third Annual Report*, 12 FCC Rcd at 4403-4.

³⁹ See *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 17 FCC Rcd 1244, 1281 (2001) ("*Eighth Annual Report*").

⁴⁰ See 47 U.S.C. § 573.

OVS falls within the SBA-recognized definition of cable and other program distribution services.⁴¹ This definition provides that a small entity is one with \$ 12.5 million or less in annual receipts.⁴² The Commission has certified 25 OVS operators with some now providing service. Affiliates of Residential Communications Network, Inc. ("RCN") received approval to operate OVS systems in New York City, Boston, Washington, D.C. and other areas. RCN has sufficient revenues to assure us that they do not qualify as small business entities. Little financial information is available for the other entities authorized to provide OVS that are not yet operational. Given that other entities have been authorized to provide OVS service but have not yet begun to generate revenues, we conclude that at least some of the OVS operators qualify as small entities

Electronics Equipment Manufacturers. Rules adopted in this proceeding could apply to manufacturers of DTV receiving equipment and other types of consumer electronics equipment. The SBA has developed definitions of small entity for manufacturers of audio and video equipment⁴³ as well as radio and television broadcasting and wireless communications equipment.⁴⁴ These categories both include all such companies employing 750 or fewer employees. The Commission has not developed a definition of small entities applicable to manufacturers of electronic equipment used by consumers, as compared to industrial use by television licensees and related businesses. Therefore, we will utilize the SBA definitions applicable to manufacturers of audio and visual equipment and radio and television broadcasting and wireless communications equipment, since these are the two closest NAICS Codes applicable to the consumer electronics equipment manufacturing industry. However, these NAICS categories are broad and specific figures are not available as to how many of these establishments manufacture consumer equipment. According to the SBA's regulations, an audio and visual equipment manufacturer must have 750 or fewer employees in order to qualify as a small business concern.⁴⁵ Census Bureau data indicates that there are 554 U.S. establishments that manufacture audio and visual equipment, and that 542 of these establishments have fewer than 500 employees and would be classified as small entities⁴⁶ The remaining 12 establishments have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. Under the SBA's regulations, a radio and television broadcasting and wireless communications equipment manufacturer must also have 750 or fewer employees in order to qualify as a small business concern.⁴⁷ Census Bureau data indicates that there 1,215 U.S. establishments that manufacture radio and television broadcasting and wireless communications equipment, and that 1,150 of

⁴¹ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220)

⁴² *Id.*

⁴³ 13 CFR § 121.201, NAICS code 334310

⁴⁴ 13 CFR § 121.201, NAICS code 334220.

⁴⁵ 13 CFR § 121.201, NAICS code 334310.

⁴⁶ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Audio and Video Equipment Manufacturing, Table 4 at 9 (1999). The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees. No category for 750 employees existed. Thus, the number is as accurate as it is possible to calculate with the available information

⁴⁷ 13 C.F.R. § 121 201, NAICS code 334220

these establishments have fewer than 500 employees and would be classified as small entities⁴⁸ The remaining 65 establishments have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. We therefore conclude that there are no more than 542 small manufacturers of audio and visual electronics equipment and no more than 1,150 small manufacturers of radio and television broadcasting and wireless communications equipment for consumer/household use.

Computer Manufacturers. The Commission has not developed a definition of small entities applicable to computer manufacturers. Therefore, we will utilize the SBA definition of electronic computers manufacturing. According to SBA regulations, a computer manufacturer must have 1,000 or fewer employees in order to qualify as a small entity.⁴⁹ Census Bureau data indicates that there are 563 firms that manufacture electronic computers and of those, 544 have fewer than 1,000 employees and qualify as small entities⁵⁰ The remaining 19 firms have 1,000 or more employees. We conclude that there are approximately 544 small computer manufacturers.

D. Description of Projected Reporting, Recordkeeping and other Compliance Requirements. At this time, we do not expect that the proposed rules would impose any additional reporting or recordkeeping requirements. However, compliance with the rules, if they are adopted, may require consumer electronics manufacturers to seek approval for new device connectors and associated content protection technologies to be used in conjunction with unidirectional digital cable products.⁵¹ These requirements could have an impact on consumer electronics manufacturers, including small entities. We seek comment on the possible burden these requirements would place on small entities. Also, we seek comment on whether a special approach toward any possible compliance burdens on small entities might be appropriate.

E. Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities, (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.⁵²

As indicated above, the *Second Further Notice* seeks comment on whether the

⁴⁸ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, Table 4 at 9 (1999). The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees. No category for 750 employees existed. Thus, the number is as accurate as it is possible to calculate with the available information.

⁴⁹ 13 C.F.R. § 121.201, NAICS code 334111.

⁵⁰ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Electronic Computer Manufacturing, Table 4 at 9 (1999)

⁵¹ See *Second Further Notice* at ¶¶ 83-86

⁵² 5 U.S.C. § 603(b)

Commission should adopt rules establishing an approval mechanism for new connectors and associated content protection technologies to be used with unidirectional digital cable products. Consumer electronics manufacturers may be required to seek such approval prior to implementing new connectors and associated content protection technologies in unidirectional digital cable products. We welcome comment on modifications of this proposal to lessen any potential impact on small entities, while still remaining consistent with our policy goals.

The *Second Further Notice* also seeks comment on the potential applicability of certain transmission standards for digital cable systems to systems with an activated channel capacity of 550 MHz or greater. Since such cable systems are often owned by small cable operators, we seek comment on the potential impact of this proposed rule upon small cable operators and whether some relief mechanism, such as waivers, would help alleviate any potential impact on small entities.⁵³

With respect to the proposed requirement for consumer electronics manufacturers to provide consumers with pre-sale information regarding the functionalities of unidirectional digital cable televisions, we seek comment on how this might affect small manufacturers. We also seek comment on whether the potential economic burden on small entities might be lessened, while still generally retaining the requirement or the intended effect of the requirements.

Finally, the *Second Further Notice* seeks comment on whether to permit or ban the down-resolution by MVPDs of non-broadcast MVPD programming. We believe this requirement would largely impact the DBS industry, which is primarily composed of large entities. To the extent that small entities might be adversely affected by this potential requirement, we welcome comments on possible small entity-related alternatives.

Federal Rules Which Duplicate, Overlap, or Conflict with the Commission's Proposals.
None.

⁵³ See *Second Further Notice* at ¶ 80.

STATEMENT OF CHAIRMAN MICHAEL K. POWELL

Re. Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices; and Compatibility Between Cable Systems and Consumer Electronics Equipment.

Today's decision by a unanimous Commission is a victory for consumers and a major step in the digital television transition. Consumers who want digital television sets will have an easier time connecting them to their cable service and having them work with high definition and other digital programming. I am more convinced than ever that high definition programming is becoming a competitive differentiator among television programmers.

But programmers who want to roll out new high definition programming need people to be able to see the programming. Until now, many consumers have been reluctant to invest in the newest televisions because of uncertainties about compatibility with cable systems and set top boxes. The FCC's actions today are a major step toward alleviating those problems.

I would take this opportunity to acknowledge the leadership of key Congressional leaders, including Chairman Billy Tauzin and Chairman Fred Upton, on the issue of digital television. Their personal commitment in this area bears fruit today, and consumers are the beneficiaries.

Of course, at core of the digital television transition is programming. It is important to me that we preserve incentives for program producers to invest in high value content. Today's decision facilitates protection of high value content on cable systems by providing incentives for cable and consumer electronics manufacturers to work together to include various content protection technologies in consumer devices.

Now that we have taken this step in the cable world, we must immediately turn our attention to broadcasting. Over 35 million Americans continue to receive television programming exclusively from over-the-air broadcasters. And over 30% of all television sets in this country are not connected to cable or satellite service. The viability of our free broadcasting system is a high priority for me, and the government needs to ensure that broadcast television is not disadvantaged as a delivery platform for high value content.

In that regard, I plan to deliver to my colleagues a draft decision on the Broadcast Flag proceeding in the very near future. All affected parties should be aware that this proceeding is in the on-deck circle. I look forward to working with my colleagues and the public on this important proceeding.

Finally, I wish to be clear that our encoding rules included in today's Plug & Play decision are not intended to modify existing copyright law. Consumers and content owners retain all of their existing rights and remedies under copyright law. In this proceeding, the FCC simply looks to copyright law for guidance on policies that will promote the DTV transition.

**STATEMENT OF
COMMISSIONER KATHLEEN Q. ABERNATHY**

Re: Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; and Compatibility Between Cable Systems and Consumer Electronics Equipment, Second Report and Order and Second Further Notice of Proposed Rulemaking, CS Docket No. 97-80, PP Docket No. 00-67

The plug-and-play agreement between the cable television and consumer electronics industries and today's Order adopting final rules are critical milestones in the digital television transition. As a result of this Order, millions of consumers will be able to receive high-definition and other digital programming by connecting a cable wire directly to a digital television or other device — without using a set-top box. Such cable-ready digital television sets should be commercially available by the end of next year or shortly thereafter. I commend the industry groups for their commitment to the collaborative process that made this rulemaking possible, and I appreciate the excellent work of the Media Bureau and my colleagues in drafting the Order and Further Notice.

The Order adopts technical standards regarding the distribution of video programming on digital cable systems and labeling requirements for devices marketed as "digital cable ready." More controversially, the Order establishes encoding rules — a ban on selectable output control, a ban on the down-resolution of broadcast programming, and copy-protection limits for various categories of programming. Ordinarily, I would strongly prefer to leave such matters to the marketplace. I am quite reluctant to employ regulation to dictate how programming should be protected. Nevertheless, the record demonstrates that the cable and consumer electronics industries would not have resolved these thorny issues without an assurance that *all* MVPDs would be subject to the same rules. In other words, absent regulatory intervention to ensure a level playing field, the digital transition may well have been derailed.

Given this context, I support the encoding rules in the Order, and I take comfort from the fact that our rules are both balanced and narrowly tailored to the governmental interests at stake. For example, we concluded that, at this time, a flat ban on selectable output control is necessary in light of the extreme consequences of an MVPD's use of that tool. By contrast, we have proscribed down-resolution only for broadcast content — rather than banning this tool across the board — because the record demonstrates that this partial ban strikes the optimal balance among the interests of content owners, MVPDs, manufacturers, and, most importantly, consumers. Likewise, we have attempted to maximize flexibility for subscription video-on-demand services and other new business models by declining to mandate uniform copy-protection caps for such services, since they do not fall neatly into the established categories. Wherever possible, I have strived to minimize the degree of governmental intervention.

Finally, I am also pleased that the Order and Further Notice, on balance, will promote innovation to a far greater degree than the existing PHILA licensing process. I recognize that computer manufacturers, software companies, and others are concerned that the compliance and robustness rules associated with the new DFAST license are skewed in favor of digital televisions and against PCs. Yet, unlike the status quo, which is characterized by a closed certification process and a PHILA license that assigned no express role to the FCC, the Commission's new rules establish a more open certification process and the DFAST license gives the FCC an oversight role in the approval of new outputs and content protection technologies. Through this oversight, the Commission can assure that PCs and other devices with open architectures and

alternative copy-protection schemes are included in the DTV transition. It is also important for the Commission to establish this initial framework for one-way digital television receivers, after which a broader array of interests can participate in the development of a two-way standard. I look forward to that second phase and stand ready to take other steps to promote competition in the market for navigation devices and to continue furthering the DTV transition.

**STATEMENT OF
COMMISSIONER MICHAEL J. COPPS**

*Re: Implementation of Section 304 of the Telecommunications Act of 1996;
Commercial Availability of Navigation Devices; Compatibility Between Cable
Systems and Consumer Electronics Equipment*

This item demonstrates once again the commitment of this Commission and our Chairman to move forward to resolve important issues in order to expedite the digital transition. With some 70 percent of U.S. households subscribing to cable television services, issues like cable compatibility and other technical matters that have been holding up the digital transition need to be decided.

Today's decision is not an ideal solution, but it is a step forward and far preferable to a status quo in which consumers are unable to access digital cable services without a set-top box and in which innovators face continued uncertainty. By establishing a standard to ensure the compatibility of cable systems with DTV devices and providing a process for approval of new products and technologies with the Commission as neutral arbiter, this decision should speed the commercial availability of digital cable ready products with greater functionality, thereby providing consumers with more choices and ultimately reducing the costs of DTV technology.

We will, however, only succeed in accelerating the digital transition when we confront head-on the significant consumer confusion that exists in this area. Consumer education and outreach are indispensable in gaining consumer acceptance. Today's Order requires manufacturers to include post-sales material describing the features and limitations of unidirectional cable televisions. I would prefer to see information provided to consumers up-front. I believe we need a greater commitment from the industry and from the Commission for consumer outreach and education if we are to succeed in this transition. What we can require, we should require. Where we can't require, we should exhort, bring parties together, and encourage the development of such practices that will bring needed consumer information to buyers before they become owners.

I vote for today's Order with the understanding that it will not affect any of the rights or remedies available under our nation's copyright laws and cognizant that it is Congress that ultimately sets national policy in this critical and sensitive area. As we implement this decision, I for one, and I trust my colleagues, will remain sensitive to this and not venture into content matters beyond our authority.

I commend the cable and consumer electronics industries for their efforts to reach agreement. It is, however, not the end of the process. There are still many miles to walk here. I expect this decision will provide added impetus to work out the remaining details on bi-directional cable compatibility. As this process moves forward, I hope that the cable and consumer electronics industries will reach out and work more closely with other interested parties to reach consensus. Many individuals and groups have an interest in the outcomes here, and in the next round I will be looking to see if they are more fully consulted as we struggle toward resolution of these often-thorny issues. So when I say that I look forward to working with my colleagues, the industry, and all interested stakeholders to resolve those issues together, I say it with more than passing interest. The bi-directional agreement will need to be more than a bi-polar discussion. We live in a multi-polar world.

The issues attending this item were many, complicated and often highly technical. Our Bureau and personal staffs did yeoman work in developing and plowing through an item that, while it may not answer everyone's fondest hopes and dreams, keeps the digital television transition on track and provides processes to monitor and resolve issues as they develop. I want to salute my colleagues, too, for their immersion in all this and for the constructive cooperation that brought the item to us this morning.

**STATEMENT OF
COMMISSIONER KEVIN J. MARTIN**

Re: Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment, Second Report and Order and Second Further Notice of Proposed Rulemaking, CS Docket No. 97-80; PP Docket No. 00-67

I support today's decision on compatibility between cable systems and consumer electronics equipment. I believe it is extremely important for the Commission to resolve outstanding DTV-related issues quickly so that affected industries and consumers know the rules of the road. As I wrote a year ago, resolving issues surrounding digital cable compatibility would benefit consumers significantly by allowing the majority of consumers – about 70 percent of consumers who access their programming via cable – to more easily view digital programming. I am glad that we are taking action on this and hope that manufacturers can now incorporate digital broadcast and cable reception capabilities for approximately the same cost as the digital broadcast tuner alone. By ensuring equipment functionality and interoperability for digital cable systems, our action allows manufacturers to build fully integrated “digital cable ready” sets that also incorporate broadcast tuners.

I am disappointed that we were not able to resolve the Broadcast Flag proceeding at the same time. Acting on the content protection rules in both the Plug & Play proceeding and the Broadcast Flag proceeding at the same time would have clarified the rules of the road for all participants in the DTV transition. Still, I am pleased that the Commission has committed in this item to resolving the Broadcast Flag proceeding in the near future, and I look forward to working with my colleagues on this difficult and important issue.

I also note some concerns that I have about the process used to reach this agreement. A number of parties complained to the Commission that they were not afforded an opportunity to express their concerns during the negotiations that culminated in the Plug & Play agreement. These parties argue that the agreement between the cable and consumer electronics industries – which is limited to one-way products – impacts them. I understand that a similar round of industry discussions focused on interactive, two-way products is about to start. I strongly encourage that *all* interested parties be allowed to participate in setting the groundwork for any necessary rules.

Finally, I note the difficulty of these issues and the importance of ensuring that our rules do not impede the legal rights of copyright holders to protect their content.

In all, I believe that today's decision is a good step forward for the transition to digital television.

**STATEMENT OF
COMMISSIONER JONATHAN S. ADELSTEIN**

Re: Second Report and Order and Second Further Notice of Proposed Rulemaking (CS Docket No. 97-80; PP Docket No. 00-67)

Today, the Commission responds to the public readiness for "Digital Cable Ready" devices. The agreement between the cable television and consumer electronics industries giving consumers the ability to get beyond the set-top box and plug their televisions and other devices directly into the digital cable system was a positive step in the resolution of long-pending and complex issues. Today we take the first step toward this reality. Although not perfect, today's action gives us reason for optimism that we can embark on a world of innovation and growth in one-way digital devices and digital content delivery systems. This decision, along with anticipated resolution of these issues and more for two-way interactive devices, should result in more choice of new products and services using the cable infrastructure which will entice consumers to embrace the digital transition.

Our goals are simple – to promote innovation, interoperability, and the inevitable transition to high-definition digital television. It is the methods that have proven complicated over the past several years. I believe we have struck the right balance today between the delicate and competing interests at stake. We adopt rules that will enable new business models to launch. We adopt processes that will allow the Commission to serve as arbiter of disputes. And we seek further comment on those aspects surrounding the agreement where we are least able to predict the results for consumers, cable operators, consumer electronics companies, content providers, and other interested parties.

Today's decision is fundamentally about innovation in the delivery of high value content into people's homes, and in the products that will receive such content. We are taking steps to ensure that all technologies will be evaluated objectively and that testing and certification of devices can be administered by neutral parties. These new devices and technologies will be central to the consumer's experience with digital content as it is integrated into the home network.

We are mindful today of the needs of copyright owners to protect high value content. Our action does not affect any rights or limitations of copyright holders under the copyright law. We preserve flexibility for the later use of certain methods of protecting premium content if it is shown that such uses are necessary and consumer-friendly.

I look forward to the outcome of the ongoing discussions to devise standards and rules for interactive, two-way devices, and encourage the industries to consult with other interested parties as those discussions progress. I also encourage manufacturers and cable operators to work with retailers in a broad outreach campaign to the public. As the public begins to enjoy the new choices available to them, I suspect they will quickly become "Interactive Digital Cable Ready" and demand even more innovative interactive devices which can be brought to market right away.